

Title (en)

Shaft furnace for carbonization of organic solid fuels

Title (de)

Schachtofen zur Verschwelung organischer Feststoffe

Title (fr)

Fourneau à cuve destiné à carboniser des matières solides organiques

Publication

EP 2413032 A3 20140326 (DE)

Application

EP 11006188 A 20110727

Priority

CH 12302010 A 20100727

Abstract (en)

[origin: EP2413032A2] Shaft furnace (1) made of refractory materials for carbonizing organic raw materials to pyro-coal comprises: a supplying region of the raw materials; a carbonization chamber (4) to the treatment site of the raw materials; firebeds to the carbonization site of the raw materials to the pyro-coal; a withdrawal zone of the pyro-coal; at least one conveying screw to supply the organic solid- and residual materials; at least one rotating disc screen roller to carry the firebeds, and discharge the pyro-coal from the firebeds; and a discharging screw to discharge the pyro-coal in a trough. Shaft furnace (1) made of refractory materials for carbonizing organic raw materials to pyro-coal, comprises (from top to bottom): a supplying region of the raw materials; a carbonization chamber (4) to the treatment site of the raw materials; firebeds to the carbonization site of the raw materials to the pyro-coal; a withdrawal zone of the pyro-coal; at least one conveying screw as a dosing device (6.1) for supplying the organic solid- and residual materials; at least one rotating disc screen roller for carrying the firebeds, and discharging the pyro-coal from the firebeds; and a discharging screw for discharging the pyro-coal in an upwardly open trough, where the discharging screw with the pyro-coal is obstructed or impeded to the path of the external air to penetrate into the carbonization chamber.

IPC 8 full level

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CPC (source: EP)

F23G 5/24 (2013.01); **F23G 7/10** (2013.01); **F23G 2203/103** (2013.01); **F23G 2209/26** (2013.01)

Citation (search report)

- [A] GB 2466260 A 20100623 - MATTINSON STEPHEN [GB]
- [A] US 3141834 A 19640721 - DEAN ALLRED VICTOR
- [A] DE 493602 C 19300308 - HOCHDRUCKDAMPF ZUSATZKESSEL M
- [A] GB 331572 A 19300707 - FRANZ KROEPELIN

Cited by

CN114752396A; WO2015036241A1

Designated contracting state (EPC)

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